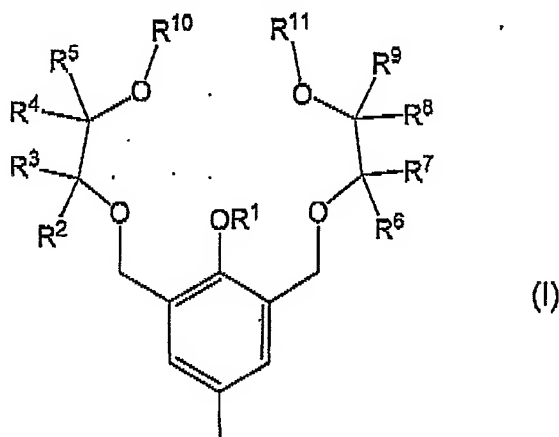


### AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

#### Listing of Claims

Claim 1 (Currently Amended): A fluorescent molecular wire comprising a polymer main chain having a linked conjugated system, wherein an optically active substituent is linked to the polymer main chain and is conjugated with the polymer main chain, the optically active substituent being represented by the following formula (I):



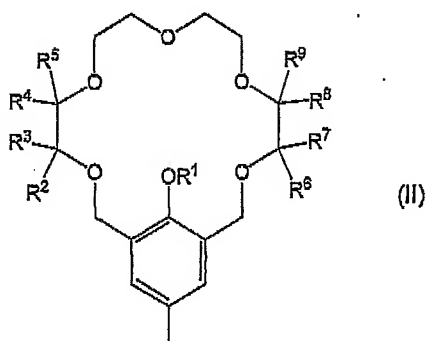
where  $R^1$  represents a hydrogen atom or an alkyl group having 1 to 10 carbon atoms,  $R^2$ ,  $R^3$ ,  $R^4$ ,  $R^5$ ,  $R^6$ ,  $R^7$ ,  $R^8$ , and  $R^9$  represent independently a hydrogen atom, a linear alkyl group having 1 to 30 carbon atoms that may have a substituent, a branched alkyl group having 2 to 30 carbon atoms that may have a substituent, a cyclic alkyl group having 3 to 30 carbon atoms that may have a substituent, an aryl group having 6 to 30 carbon atoms that may have a substituent, or an aralkyl group having 7 to 30 carbon atoms that may have a substituent, and  $R^3$  and  $R^7$  may be bonded respectively to  $R^4$  and  $R^8$  to form an alkylene group having 2 to 60 carbon atoms that may have a substituent; and  $R^{10}$  and  $R^{11}$  represent independently a hydrogen atom or an alkyl group having 1 to 15 carbon atoms that may have a heteroatom, and  $R^{10}$  and  $R^{11}$  may be bonded to form an alkylene group having 2 to 30 carbon atoms that may have a heteroatom, and wherein when a complex between the optically active substituent and a primary amine is formed, a charge transfer from a receptor site to the polymer main chain is caused, thereby resulting in a

quenching of the fluorescence in the fluorescent molecular wire, and wherein the polymer main chain having a linked conjugated system is a polyphenylene structure, a polythiophene structure, a poly(phenylene thiophenylene) structure, a poly(phenylene ethynylene) structure, a poly(thiophenylene ethynylene) structure, or a poly(phenylene vinylene) structure, a polyarylene structure, a poly(arylene ethynylene) structure, or a poly(arylene vinylene) structure.

Claims 2 and 3 (Cancelled).

Claim 4 (Currently Amended): The fluorescent molecular wire of claim 1 ~~any one of claims 1 to 3 or 8~~, wherein the optically active substituent is coupled to the polymer main chain having a linked conjugated system via mono- or poly-arylene, mono- or poly-alkylene, mono- or poly-vinylene, or a combination thereof.

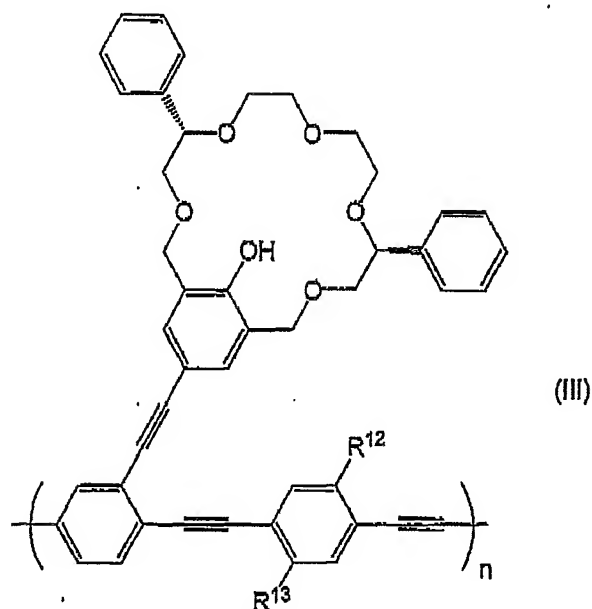
Claim 5 (Currently Amended): The fluorescent molecular wire of claim 1 ~~any one of claims 1 to 4 or 8~~, wherein the optically active substituent is represented by the following formula (II):



where R<sup>1</sup> represents a hydrogen atom or an alkyl group having 1 to 10 carbon atoms; and R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup>, R<sup>5</sup>, R<sup>6</sup>, R<sup>7</sup>, R<sup>8</sup>, and R<sup>9</sup> represent independently a hydrogen atom, a linear alkyl group having 1 to 30 carbon atoms that may have a substituent, a branched alkyl group having 2 to 30 carbon atoms that may have a substituent, a cyclic alkyl group having 3 to 30 carbon atoms that may have a substituent, an aryl group having 6 to 30 carbon atoms that may have a substituent, or an aralkyl group having 7 to 30 carbon atoms that may have a substituent, and R<sup>3</sup> and R<sup>7</sup> may be

bonded respectively to  $R^4$  and  $R^8$  to form an alkylene group having 2 to 60 carbon atoms that may have a substituent.

Claim 6 (Previously Presented): The fluorescent molecular wire of claim 5, which is represented by the following formula (III):



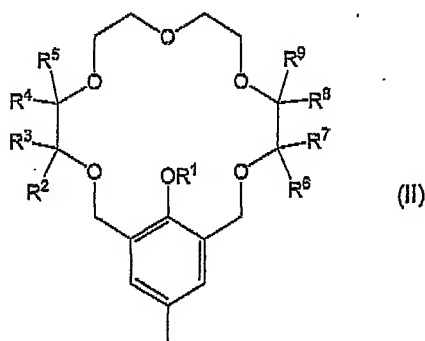
where  $R^{12}$  and  $R^{13}$  represent independently a hydrogen atom, an alkyl group having 1 to 20 carbon atoms, an alkoxy group having 1 to 20 carbon atoms, a di- or mono-alkylamide group having 1 to 20 carbon atoms, or an alkyl ester group having 1 to 20 carbon atoms; and  $n$  is an integer of 5 or more.

Claim 7 (Currently Amended): A chiral sensor comprising the fluorescent molecular wire of claim 1 ~~any one of claims 1 to 6 or 8~~.

Claim 8 (Previously Presented): The fluorescent molecular wire of claim 1, wherein the fluorescent molecular wire has an improved asymmetry recognition ability compared to a monomeric compound having the same structure as the optically active substituent.

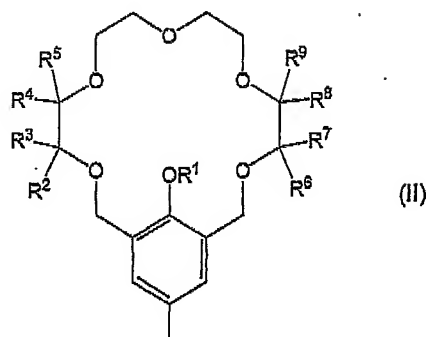
Claim 9 (New): The fluorescent molecular wire of claim 8, wherein the optically active substituent is coupled to the polymer main chain having a linked conjugated system via mono- or poly-arylene, mono- or poly-alkylene, mono- or poly-vinylene, or a combination thereof.

Claim 10 (New): The fluorescent molecular wire of claim 4, wherein the optically active substituent is represented by the following formula (II):



where  $R^1$  represents a hydrogen atom or an alkyl group having 1 to 10 carbon atoms; and  $R^2$ ,  $R^3$ ,  $R^4$ ,  $R^5$ ,  $R^6$ ,  $R^7$ ,  $R^8$ , and  $R^9$  represent independently a hydrogen atom, a linear alkyl group having 1 to 30 carbon atoms that may have a substituent, a branched alkyl group having 2 to 30 carbon atoms that may have a substituent, a cyclic alkyl group having 3 to 30 carbon atoms that may have a substituent, an aryl group having 6 to 30 carbon atoms that may have a substituent, or an aralkyl group having 7 to 30 carbon atoms that may have a substituent, and  $R^3$  and  $R^7$  may be bonded respectively to  $R^4$  and  $R^8$  to form an alkylene group having 2 to 60 carbon atoms that may have a substituent.

Claim 11 (New): The fluorescent molecular wire of claim 8, wherein the optically active substituent is represented by the following formula (II):



where R<sup>1</sup> represents a hydrogen atom or an alkyl group having 1 to 10 carbon atoms; and R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup>, R<sup>5</sup>, R<sup>6</sup>, R<sup>7</sup>, R<sup>8</sup>, and R<sup>9</sup> represent independently a hydrogen atom, a linear alkyl group having 1 to 30 carbon atoms that may have a substituent, a branched alkyl group having 2 to 30 carbon atoms that may have a substituent, a cyclic alkyl group having 3 to 30 carbon atoms that may have a substituent, an aryl group having 6 to 30 carbon atoms that may have a substituent, or an aralkyl group having 7 to 30 carbon atoms that may have a substituent, and R<sup>3</sup> and R<sup>7</sup> may be bonded respectively to R<sup>4</sup> and R<sup>8</sup> to form an alkylene group having 2 to 60 carbon atoms that may have a substituent.

Claim 12 (New): A chiral sensor comprising the fluorescent molecular wire of claim 4.

Claim 13 (New): A chiral sensor comprising the fluorescent molecular wire of claim 5.

Claim 14 (New): A chiral sensor comprising the fluorescent molecular wire of claim 6.

Claim 15 (New): A chiral sensor comprising the fluorescent molecular wire of claim 8.